

## REMARKS

By this amendment, Applicants have amended claims 1, 10, 12, 15, 19, and 21. As a result, claims 1-22 remain pending in this application. These amendments are being made to facilitate early allowance of the presently claimed subject matter. Applicants do not acquiesce in the correctness of the objections and rejections and reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, the Office objects to claims 11 and 20 for including parentheses. Applicants note that the parentheses include an acronym commonly used in the art to refer to the claimed feature. To this extent, Applicants respectfully submit that inclusion of the acronym provides additional clarity to the claimed invention. As a result, Applicants respectfully submit that the claims are proper and request withdrawal of the objection.

Additionally, the Office rejects claims 1-22 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,687,695 (Miller). In order to present a *prima facie* rejection under 35 U.S.C. § 102(e), the Office must show that Miller discloses each and every feature of the claimed invention. Since the Office fails to present such a *prima facie* case, Applicants respectfully request withdrawal of the rejections.

For example, with respect to claim 1, the Office fails to show, *inter alia*, the claimed obtaining objectives for the data mining model. Applicants note that the Office Action does not include any discussion with respect to the claimed feature and where it is allegedly found in

Miller. As a result, Applicants respectfully request withdrawal of the rejection of claim 1 and claims 2-11, which depend therefrom, as allegedly being anticipated by Miller.

With further respect to claim 1 and with respect to claim 19, the Office fails to show, *inter alia*, that Miller discloses the claimed automatically selecting a set of algorithms based on objectives for a data mining model (claim 1). In support of its rejection, the Office cites col. 4, line 61 of Miller and states “wherein selecting the data set and ‘pre-processing’ the data, Miller”. Office Action, page 4. Initially, Applicants note that the apparent citation intended by the Office is col. 3, line 61, which states “3. Selecting the data set and ‘pre-processing’ the data.” Miller, col. 3, line 61. Further, Applicants note that the Office’s statement explaining the citation appears to be incomplete. In particular, it appears that the Office intended to clarify its interpretation of this portion of Miller, however, failed to do so in the rejection. As a result, Applicants respectfully request clarification of the Office’s interpretation of Miller should the rejection be maintained.

Regardless, as best understood by Applicants, the Office apparently alleges that Miller’s disclosure of “selecting the data set and ‘pre-processing’ the data” (col. 3, line 61) discloses Applicants’ claimed automatically selecting a set of algorithms based on objectives for a data mining model. It is with great difficulty that Applicants attempt to understand the Office’s position. In particular, the cited portion of Miller does not mention objectives for a data mining model or a set of algorithms as in the claimed invention. Rather, the cited portion of Miller is concerned with selecting a data set and ‘pre-processing’ the data. Applicants note that these actions are entirely unrelated to the claimed automatically selecting a set of algorithms based on objectives for a data mining model.

Further, Miller references “pre-processing” data in two other locations. In the first location, Miller defines data reorganization as “the ability to join or denormalize pre-processed results into a wide analytic data set.” Miller, col. 7, lines 1-2. In the second location, Miller describes that certain “Analytic Algorithms 206... can be implemented using... [an] approach [that] involves data pre-processing that reduces the amount of data that a non-SQL algorithm can then process.” Miller, col. 7, lines 26-31. Applicants note that neither reference is related to the selection of a set of algorithms, let alone the claimed automatically selecting a set of algorithms based on objectives for a data mining model. Additionally, the remainder of Miller is silent with respect to any type of algorithm selection. In contrast, Miller merely discloses that an Analytic Algorithm can be invoked. Miller, col. 5, lines 42-45; col. 6, lines 21-25; col. 9, lines 43-45. As commonly known in the art, to invoke means to activate, which is unrelated to selecting the Analytic Algorithm. As a result, Applicants again respectfully request withdrawal of the rejection of claim 1 and claims 2-11, which depend therefrom, and Applicants respectfully request withdrawal of the rejection of claim 19 and claims 20-22, which depend therefrom as allegedly being anticipated by Miller.

With further respect to claims 1 and 19, the Office fails to show, *inter alia*, that Miller discloses the claimed optimizing the set of algorithms using the plurality of datasets (claim 1). In support of its rejection, the Office cites col. 5, lines 20-22 of Miller which states that the AAPC includes “one or more Scalable Data Mining Functions 202 that comprise complex, optimized SQL statements...” Miller states that “the Scalable Data Mining Functions... are created, in the preferred embodiment, by parameterizing and instantiating the corresponding Analytic APIs.” Miller, col. 5, lines 44-47. Initially, Applicants note that Miller states that the

SQL statements are optimized. A SQL statement is not equivalent in any respect to the claimed set of algorithms.

Additionally, to the extent that SQL statements can be considered comparable to Applicants' claimed algorithms, while Miller discusses that the SQL statements are optimized, Miller does not include any discussion regarding how or when these SQL statements are optimized. To this extent, the mere use of optimized SQL statements fails to disclose any manner for optimizing such statements. In the claimed invention, the algorithms are optimized using a plurality of datasets that are created from sample data. Clearly, Miller fails to expressly or implicitly disclose any such solution for optimizing the SQL statements. In fact, Miller states that the scalable data mining functions create data that the Office alleges corresponds to the plurality of datasets. Miller, col. 6, line 52-col. 7, line 16; Office Action, page 3.

The Office also states that Miller provides a mechanism for invoking the scalable data mining functions. However, as discussed above, Applicants note that invoking a function merely means activating the function. To this extent, such a mechanism is unrelated to optimizing the function. As a result, Applicants again respectfully request withdrawal of the rejection of claims 1 and 19 and claims 2-11 and 20-22, which respectively depend therefrom, as allegedly being anticipated by Miller.

With further respect to claims 1 and 19, the Office fails to show, *inter alia*, that Miller discloses the claimed generating the data mining model based on the optimized set of algorithms (claim 1). In support of its rejection, the Office initially cites col. 5, lines 61-67 of Miller, which discusses storing the results from the execution of Scalable Data Mining Functions as an analytic model. Since the Scalable Data Mining Functions comprise SQL statements (Miller, col. 6, lines

44-47), the results of their execution comprises data obtained from one or more relational database tables. To this extent, Applicants have herein amended claims 1 and 19 to clarify that the claimed data mining model mines data when executed. Clearly, results obtained from a relational database cannot be executed or mine data. As a result, Applicants again respectfully request withdrawal of the rejection of claims 1 and 19 and claims 2-11 and 20-22, which respectively depend therefrom, as allegedly being anticipated by Miller.

With further respect to claims 2 and 22, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed shuffling the sample data (claim 2). In support of its rejection, the Office cites a portion of Miller that states that “Analytic Algorithms 206 that require a mix of programmatic iteration along with Extended ANSI SQL statements, such as inductive inference, can be implemented using the CLI 210.” Miller, col. 8, lines 11-14. Applicants note that algorithms that include both programmatic iteration and SQL statements are entirely unrelated to the process of shuffling sample data. As a result, Applicants again respectfully request withdrawal of the rejection of claims 2, claims 3-4, which depend therefrom, and claim 22 as allegedly being anticipated by Miller.

With further respect to claims 2 and 22, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed including each partition in one of the plurality of datasets (claim 2). In support of its rejection, the Office cites a portion of Miller that describes functionality provided by Scalable Data Mining Functions. Applicants note that it is with great difficulty that Applicants attempt to understand the basis of the Office’s rejection. In particular, Applicants note that this discussion lacks any mention of data partitions, let alone including such partitions in one of a plurality of datasets. As a result, Applicants again respectfully request

withdrawal of the rejection of claims 2, claims 3-4, which depend therefrom, and claim 22 as allegedly being anticipated by Miller. In the alternative, should the Office maintain its rejection, Applicants respectfully request clarification of the Office's interpretation of Miller with respect to the claimed feature.

With further respect to claim 5, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed obtaining a rule that comprises a best practice for an objective in order to select a set of algorithms based on objectives for a data mining model. Initially, Applicants note that the Office's citation of cols. 9-10, line 21 and lines 42-45 appears to be in error. As best Applicants can determine, the Office apparently intended to cite col. 8, line 21 and lines 42-45. Regardless, Applicants note that this portion of Miller, and Miller in its entirety, lacks any discussion of selecting algorithms, let alone obtaining a rule that comprises a best practice for an objective. As a result, Applicants again respectfully request withdrawal of the rejection of claim 5 and claim 6, which depends therefrom, as allegedly being anticipated by Miller. In the alternative, should the Office maintain its rejection, Applicants respectfully request clarification of the Office's interpretation of Miller with respect to the claimed feature.

With further respect to claims 10 and 21, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed translating the optimized set of algorithms into a set of standard query language (SQL) statements, and including the set of SQL statements in the data mining model (claim 10). In sharp contrast, as discussed above with respect to claim 1, Miller's analytic model comprises results obtained from the execution of Scalable Data Mining Functions that comprise SQL statements (Miller, col. 6, lines 44-47). Additionally, the portion of Miller cited by the Office in support of its original rejection merely describes components that

address tasks in a data mining process, none of which comprises a data mining model. As a result, Applicants again respectfully request withdrawal of the rejection of claims 10 and 21 as allegedly being anticipated by Miller.

With further respect to claims 11 and 20, Applicants note that the Office fails to show, *inter alia*, that Miller discloses storing the data mining model as a character large object (CLOB) in a database. In support of its rejection, the Office cites Miller's discussion of a computer hardware architecture that includes a large number of processors, each with its own memory. However, Applicants note that such a computer hardware architecture is unrelated to the claimed CLOB, which comprises a particular type of database field that holds a large amount of text. To this extent, Miller's large number of processors can store data using any solution and therefore do not expressly or impliedly disclose storing a data mining model as the claimed CLOB. As a result, Applicants again respectfully request withdrawal of the rejection of claims 11 and 20 as allegedly being anticipated by Miller.

With respect to claim 12, Applicants note that the Office relies on its rejection of claims 1, 8, and 9 in the rejection. To this extent, Applicants herein incorporate the various arguments presented above with respect to claim 1. As a result, Applicants respectfully request withdrawal of the rejection of claim 12 and claims 13-14, which depend therefrom, as allegedly being anticipated by Miller.

With further respect to claim 12, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed generating the data mining model based on the adjusted set of algorithms, wherein the data mining model includes a set of SQL statements. In rejecting claim 1, the Office apparently alleges that Miller's analytical model discloses the claimed data mining

model. As discussed above, since the analytical model comprises results obtained from the execution of Scalable Data Mining Functions that comprise SQL statements (Miller, col. 6, lines 44-47), Miller's analytical model does not include a set of SQL statements. Similarly, in rejecting claim 9, the Office apparently alleges that Miller's Analytic LDM discloses the claimed set of algorithms. However, Applicants note that Miller's Analytic LDM is not used to generate a data mining model that includes a set of SQL statements, rather Miller's Analytic LDM includes "logical entity and attribute definitions" (Miller, col. 8, lines 60-63). As a result, Applicants again respectfully request withdrawal of the rejection of claim 12 and claims 13-14, which depend therefrom, as allegedly being anticipated by Miller.

With respect to claim 15, Applicants note that the Office relies on its rejection of claim 1 with respect to several features of the claimed invention in its rejection of claim 15. To this extent, Applicants herein incorporate the various arguments presented above with respect claim 1 for these features. As a result, Applicants respectfully request withdrawal of the rejection of claim 15 and claims 16-18, which depend therefrom, as allegedly being anticipated by Miller.

With further respect to claim 15, Applicants note that the Office fails to show, *inter alia*, that Miller discloses the claimed model system for generating the data mining model based on the optimized set of algorithms, wherein the data mining model includes a set of SQL statements. In support of its rejection, the Office cites col. 3, lines 2-6 of Miller, which discusses "performing data mining applications in a relational database management system [in which] at least one analytic algorithm is performed by a computer directly against a relational database." Additionally, the Office cites col. 5, lines 20-51 of Miller, which generally discusses the logical architecture of the AAPC. Applicants note that neither cited portion is related to the claimed




model system for generating the data mining model based on the optimized set of algorithms, wherein the data mining model includes a set of SQL statements. As a result, Applicants again respectfully request withdrawal of the rejection of claim 15 and claims 16-18, which depend therefrom, as allegedly being anticipated by Miller. Alternatively, should the Office maintain the rejection, Applicants respectfully request that the Office clarify its interpretation of Miller with respect to the claimed model system.

Applicants submit that each of the pending claims is patentable for one or more additional unique features. To this extent, Applicants do not acquiesce to the Office's interpretation of the claimed subject matter or the references used in rejecting the claimed subject matter. These features have not been separately addressed herein for brevity. However, Applicants reserve the right to present such arguments in a later response should one be necessary.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

  
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